

REMARKS

In view of the telephone interview held with the Examiner, applicant is submitting a preliminary amendment as requested by the Examiner.

Thus, the present amendment includes the amendment to the specification as written in the amendment filed December 31, 2002, and the claims as presented in the amendment filed August 21, 2002, with modifications thereto.

It is requested, thereby, that the amendment filed December 31, 2002 be disregarded.

Since the present Preliminary Amendment is as requested by the Examiner, favorable Action is respectfully solicited.

Respectfully submitted,

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COPY OF CLAIMS WITH MARKINGS TO
SHOW THE CHANGES MADE

① -- 16. A method of manufacturing ^{an entire} ~~pistons~~ ^[and components] ~~for~~ ^[pistons] for internal-combustion engines comprising the steps of:
(A) manufacturing initially a blank to constitute a piston ^[or]

^{first} ~~[piston component]~~ by preliminarily forging along a prescribed axis, and shaping specific contours on the forged blank to form a preliminarily-shaped piston; ^[and] (B) at least one subsequent manufacturing step of forging the preliminarily-shaped piston along at least one other ^{second} axis for creating additional contours, said piston ^[or piston component] being formed by two separate forging steps, each of said steps having a different contour along a different axis; ^{insert}

18. A method as defined in Claim 16, wherein said blank is a rod-like blank; upsetting the blank to form a skirt, ^{and a plurality of contours} ~~[and]~~ a cavity, said contours being shaped onto said skirt along a longitudinal axis of said skirt in vicinities of inner and outer circumferences and of upper and lower faces of said skirt.

19. A method as defined in Claim ¹⁸ ~~16~~, wherein said additional contours are shaped onto the preliminarily-shaped piston along said other ^{second} axis by forging at approximately 90° to said first prescribed axis, said first prescribed axis being a longitudinal axis.

20. A method as defined in Claim 16, wherein the initial manufacturing step (A) along the first prescribed axis and the subsequent manufacturing step (B) along the ^{second} ~~other~~ axis are carried out in the same forging tool into which said ^{blank} ~~blank~~ can be heated before insertion.

①

22. A method as defined in Claim 16, including the step of shaping an integrated skirt in one of the two manufacturing steps onto the preliminarily shaped piston, said skirt being *shaped* ~~accommodated~~ *within* a circumference of said skirt during the subsequent manufacturing step (B).

24. A method as defined in Claim 16, including an additional manufacturing step for reforming said piston ~~within~~ another plane.

25. A method as defined in Claim 16, including the steps of removing excess material and producing recesses by punching during at least one of the manufacturing steps (A & B) in manufacturing said piston ~~head~~.

26. A method of manufacturing ^{*an entire*} pistons ~~and components~~ *for* ~~[pistons]~~ for internal-combustion engines comprising the steps of:
(A) manufacturing initially a blank to constitute a piston ~~or~~ *first* ~~[piston component]~~ by preliminarily forging along a prescribed axis, and shaping specific contours on the forged blank to form a preliminarily-shaped piston; ~~and~~ (B) at least one subsequent manufacturing step of forging the preliminarily-shaped piston along at least one other ^{*second*} axis for creating additional contours, *9* said piston ~~or piston component~~ being formed by two separate forging steps, each of said steps having a different contour along a different axis; ^{*Direct*} said manufacturing step (A) comprises preliminarily shaping said blank along a longitudinal axis of said blank, said blank being a rod-like blank; upsetting said blank to form a skirt ^{*and a plurality of contours,*} ~~and~~ a cavity, said contours being shaped onto said skirt along a longitudinal axis of said skirt in

(2)

vicinities of inner and outer circumferences and of upper and lower faces of said skirt, said additional contours being shaped onto the preliminarily-shaped piston along said other ^{second} axis by forging ~~at~~ approximately 90° to said first prescribed axis, said first prescribed axis being a longitudinal axis, said initial manufacturing step (A) along the first prescribed axis and the subsequent manufacturing step (B) along the second other axis being carried out in the same forging tool into which said blank can be heated before insertion, said preliminarily shaped piston having a reducible wall thickness and reinforcements during the subsequent manufacturing step (B); shaping an integrated skirt in one of the two manufacturing steps onto the preliminarily shaped piston, said skirt being accommodated ^{shaped} within a circumference of said skirt during the subsequent manufacturing step (B); said blank being of steel; an additional manufacturing step of ^{reforming} forming said piston within another plane; removing excess material and producing recesses by punching during at least one of the manufacturing steps (A) and (B) in manufacturing said piston head --

INSERT (A)

(A) { and boring through sides of said piston independent of the manufacturing steps (A) and (B) for receiving a sleeveless bolt.

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